Remarks/Arguments:

This Amendment adds no new claims, and is provided to amend claims 2, 8, 14 and 17. No new matter has been added. Upon entry of this Amendment, claims 1-17 will be pending.

Objection to the Specification and Claims

The Examiner has objected to the abstract of the specification as including a number of typographical errors and exceeding 150 words. Accordingly, the Applicant has amended the abstract of the specification as suggested by the Examiner, and respectfully requests the withdrawal of the objection to the abstract.

The Examiner has also objected to claims 8, 14 and 17 as including a number of typographical errors. Accordingly, the Applicant has amended claims 8, 14 and 17 as suggested by the Examiner, and respectfully requests the withdrawal of the objection to claims 8, 14 and 17.

The Applicant has also amended claim 2 to correct a typographical error.

Rejections of the Claims under 35 U.S.C. 102

The Examiner has rejected claims 1-4, 9-12 and 13 under 35 U.S.C. 102(e), as being anticipated by U.S. Patent Publication No. 2003/0142209 issued to Yamazaki et al. (hereinafter Yamazaki). Specifically, the Examiner points to Yamazaki as describing a monitoring system to detect and record an image at a monitored position and having an image-capturing photographing unit, a candidate area detection and decision unit, a face detection unit, and a storage and retrieval unit, purportedly anticipating the system claimed by the Applicant in claim 1 and the method claimed by the Applicant in claim 15.

The Yamazaki reference describes a motorized video camera device which can identify and track objects. More specifically, the Yamazaki reference describes a device to identify a moving object, enter a first tracking mode to zoom and focus upon an entire object, and then enter a second tracking mode to identify, zoom and focus upon a color region of the object, such as a face or hands of a person. However, the system and method of Yamazaki

simply assumes that a part having an identified skin color is a face or hands of a person. In contrast, the Applicant claims a system and method wherein a face of a person is identified after examining an identified skin color area.

Specifically, in addition to a candidate area detection and decision unit to detect a human skin color candidate area, the Applicant claims a face detection unit adapted to evaluate an enlarged image video signal to detect a face video signal within an enlarged image video signal. That is, in addition to a unit to detect a skin color area, the Applicant claims a system and method to further review the skin color area to detect a face. The Examiner points to the face tracking mode described at step 2-4 of Yamazaki Fig. 4 as describing the additional face detection unit as claimed by the Applicant. However, the system and method of Yamazaki is described using the assumption that the face area is simply a large flesh color portion resulting from the tracking mode B of step 2-3 (see paragraph 20, lines 20-23 and 25-29, and paragraphs 21, 24 and 27). There is no disclosure in the Yamazaki reference of face detection, and there is simply a presumption in Yamazaki that a large skin color area (a congregation as stated at Yamazaki paragraph 27) is a face or hand area. Accordingly, the Yamazaki reference does not describe a face detection unit as claimed by the Applicant in claim 1, or the method claimed by the Applicant in claim 15.

For these reasons, the Applicant asserts that the Yamazaki reference does not disclose or reasonably suggest each element as claimed by the Applicant in independent claims 1 and 15, and the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 102(e) of independent claims 1 and 15.

Regarding claim 2, the Examiner, in addition to the reasons stated above, further points to Yamazaki as describing a candidate area detection and decision unit further having a color difference signal calculation unit and a skin color candidate area detection unit, purportedly anticipating the invention as claimed by the Applicant in claim 2, and wherein a first value indicates a color difference signal level of the video signal within the reference range and the second value indicates a color difference signal level of the video signal outside said reference range, purportedly anticipating the invention as claimed by the Applicant in

claim 3. The Examiner, in addition to the reasons stated above, further points to Yamazaki as describing a candidate area detection and decision unit further having a decision unit adapted to normalize said skin color candidate area and to determine if said normalized skin color candidate area is a human skin color candidate area, purportedly anticipating the system as claimed by the Applicant in claim 4.

However, for the reasons stated above, the Applicant asserts that the Yamazaki reference does not disclose or reasonably suggest each element as claimed by the Applicant in independent claim 1, from which claims 2, 3 and 4 depend. Accordingly, the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 102(e) of dependent claims 2, 3 and 4 for the same reasons.

Regarding claim 9, the Examiner, in addition to the reasons stated above, further points to Yamazaki as describing a storage and retrieval unit having a key manipulation unit to direct capturing, storage and retrieval of at least one signal, purportedly anticipating the system claimed by the Applicant in claim 9, and wherein the photographing unit includes a pan, tilt and zoom mechanism, purportedly anticipating the system claimed by the Applicant in claim 10. The Examiner, in addition to the reasons stated above, further points to Yamazaki as describing a system further having a switching unit to selectively switch one among the candidate area detection and decision unit and the face detection unit, purportedly anticipating the system claimed by the Applicant in claim 11, and having a filter to filter noise from said digitized video signal, purportedly anticipating the system claimed by the Applicant in claim 12.

However, for the reasons stated above, the Applicant asserts that the Yamazaki reference does not disclose or reasonably suggest each element as claimed by the Applicant in independent claim 1, from which claims 9-12 depend. Accordingly, the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 102(e) of dependent claims 9-12 for the same reasons.

Regarding claim 13, the Examiner points to Yamazaki as describing a monitoring system for analysis, storage and retrieval of an image having an image photographing unit, a candidate detection unit, a face detection unit and a storage and retrieval unit, purportedly anticipating the system claimed by the Applicant in claim 13.

However, as noted above, the Applicant claims a face detection unit adapted to evaluate an enlarged image video signal to detect a face video signal within an enlarged image video signal. That is, in addition to a unit to detect a skin color area, the Applicant claims a system and method to further review the skin color area to detect a face. The Examiner points to the face tracking mode described at step 2-4 of Yamazaki Fig. 4 as describing the additional face detection unit as claimed by the Applicant. However, as noted above, the system and method of Yamazaki is described using the assumption that the face area is simply a large flesh color portion resulting from the tracking mode B of step 2-3 (see paragraph 20, lines 20-23 and 25-29, and paragraphs 21, 24 and 27). There is no disclosure in the Yamazaki reference of face detection, and there is simply a presumption in Yamazaki that a large skin color area is a face area. Accordingly, the Yamazaki reference does not describe a face detection unit as claimed by the Applicant in claim 13.

For these reasons, the Applicant asserts that the Yamazaki reference does not disclose or reasonably suggest each element as claimed by the Applicant in independent claim 13, and the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 102(e) of independent claim 13.

Rejections of the Claims under 35 U.S.C. 103

The Examiner has rejected claims 5 and 16 under 35 U.S.C. 103(a) as being unpatentable over Yamazaki, in view of U.S. Patent Publication No. 2005/0094849 issued to Sung et al. (hereinafter Sung). Specifically, the Examiner points to Yamazaki as describing the claimed subject matter with the exception of a second face candidate area detection unit adapted to use a low-resolution support vector machine to detect a specific candidate area within said detected face candidate area and a final face detection unit adapted to use a high-resolution support vector machine to detect a face video signal within said specific candidate

area. The Examiner points to Sung as describing the remaining elements, purportedly rendering obvious the subject matter claimed by the Applicant in claim 5 and the method thereof as claimed by the Applicant in claim 16.

However, the Examiner notes that the Sung reference constitutes prior art only under 35 U.S.C. 102(e) and as such, can be disqualified as prior art under 35 U.S.C. 103(c)(1). In this case, the Applicant hereby makes the following clear and conspicuous statement:

> The Applicant states that the subject matter of the Sung reference and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Accordingly, the Sung reference should be disqualified as prior art under 35 U.S.C. 103 (c)(1).

Further, regarding the Yamazaki reference, the Examiner points to Fig. 11 and paragraph 28 as describing a test performed by the CPU to detect a face. However, the test is performed to determine if object extraction is valid and exclude noise, and is common to all of the methods of Figs. 5-8. Specifically, the test is described as identifying pixels having a "1" due to noise, and which should not be part of the extracted image. The test is not used to locate a face within the image, but in fact is provided to simply scan the pixels of the image once erroneous pixels have been identified.

As noted above, there is no disclosure in the Yamazaki reference of face detection and there is simply a presumption in Yamazaki that a large skin color area is a face or hand area. This is further revealed through the test of Fig. 11, in which the image is binarized such that colored pixels are "1". The test of Fig. 11 removes pixels having a "1" due to noise, and scans the remaining to find areas where pixels having a "1" congregate (large skin color areas). There is no disclosure of the determination of such areas to find if such areas are in fact, a face image, a hand image, or simply a large skin color area.

Accordingly, as Sung should be disqualified as prior art and Yamazaki does not teach or reasonably suggest each element of Applicant's claims 1, 5, 15 and 16, the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 103(a) of dependent claims 5 and 16 for the same reasons.

The Examiner has rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Yamazaki and Sung, in view of U.S. Patent Publication No. 2003/0071908 issued to Sannoh et al. (hereinafter Sannoh). Specifically, the Examiner points to Yamazaki as describing the claimed subject matter with the exception of a first face candidate area detection unit that uses an M-Grid Gabor Wavelet pattern with said enlarged image video signal to detect said face candidate area. The Examiner points to Sannoh as describing the remaining elements, purportedly rendering obvious the system claimed by the Applicant in claim 6.

However, for the reasons stated above, the Applicant asserts that the Yamazaki and Sung references do not disclose or reasonably suggest, alone or in combination, each element as claimed by the Applicant in independent claim 5, from which claim 6 depends. Accordingly, the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 103(a) of dependent claim 6 for the same reasons.

The Examiner has rejected claim 7 under 35 U.S.C. 103(a) as being unpatentable over Yamazaki and Sung, in view of U.S. Patent Publication No. 2006/0198554 issued to Porter et al. (hereinafter Porter). Specifically, the Examiner points to Yamazaki as describing the claimed subject matter with the exception of a second face candidate area detection unit that uses a Principal Component Analysis to generate a plurality of face and non-face feature vectors for use with said support vector machine. The Examiner points to Porter as describing the remaining elements, purportedly rendering obvious the subject matter claimed by the Applicant in claim 7.

However, for the reasons stated above, the Applicant asserts that the Yamazaki and Sung references do not disclose or reasonably suggest, alone or in combination, each element as claimed by the Applicant in independent claim 5 from which claim 7 depends.

Accordingly, the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 103(a) of dependent claim 7 for the same reasons.

The Examiner has rejected claims 8 and 17 under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Sannoh. Specifically, the Examiner points to Yamazaki as describing the claimed subject matter with the exception of a compression/decompression unit to compress or decompress at least one of said image video signal, enlarged image video signal and detected face video signal and a monitor to display at least one of said image video signal, enlarged image video signal and detected face video signal. The Examiner points to Sannoh as describing the remaining elements, purportedly rendering obvious the subject matter claimed by the Applicant in claim 8 and the method claimed by the Applicant in claim 17.

However, for the reasons stated above, the Applicant asserts that the Yamazaki and Sannoh references do not disclose or reasonably suggest, alone or in combination, each element as claimed by the Applicant in independent claim 1 from which claim 8 depends or independent claim 15 from which claim 17 depends. Accordingly, the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. 103(a) of dependent claims 8 and 17 for the same reasons.

The Examiner has rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over Yamazaki. Specifically, the Examiner points to Yamazaki as describing the claimed subject matter and takes Official Notice that a user can search a database and get desired content, and takes Official Notice that a user interface can be provided to search through a database, purportedly rendering obvious the subject matter claimed by the Applicant in claim 14.

However, for the reasons stated above, the Applicants assert that the Yamazaki reference does not disclose or reasonably suggest each element as claimed by the Applicant in independent claim 13 from which claim 14 depends. Further, the Applicant respectfully challenges the Examiners use of Official Notice in this case. The Applicant has amended

claim 14 to further recite an exemplary embodiment of the present invention wherein the storage in a database further includes "at least one unique identifier" adapted to allow a user to search for a desired normal, enlarged and facial image video signal from a large amount of recorded video signals. This is not new matter and is recited throughout the specification (see for example paragraph 62). Accordingly, the Examiner is requested to provide references to show that the above aspects of the present invention are capable of instant and unquestionable demonstration to satisfy being "well-known", as required by MPEP § 2144.03.

For these reasons, the Applicant asserts that the Yamazaki reference does not disclose or reasonably suggest each element as claimed by the Applicant in claim 14 as amended, and respectfully request the withdrawal of the rejection under 35 U.S.C. 103(a) of dependent claim 14.

Conclusion

In view of the above, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Ronald S. Grubb

Ronald S. Grubb
Reg. No. 48,672
Attorney for Applicant

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Roylance, Abrams, Berdo & Goodman, L.L.P.
1300 19th Street, N.W., Suite 600
Washington, D.C. 20036
Tel: (202) 659-9076